

cost factor used in the cost study.<sup>6</sup> The methodology using ARMIS data was approved by the Commission in the ONA proceeding for use in calculating overhead loading factors for basic service elements ("BSE").<sup>7</sup> Since for this purpose the Query Service is comparable to a BSE, ARMIS data could also be used here.

Several parties confuse the Query Service with long-term number portability that Ameritech is required to provide under Section 251(b)(2) of the Telecommunication Act of 1996, and claim that the service is thereby subject to the "competitively-neutral" cost recovery requirement of Section 251(e)(2).<sup>8</sup> They assert that the rates for the service consequently may not reflect an allocation of overhead costs. Although Ameritech believes that the competitively-neutral mechanism can and should include recovery of a reasonable allocation of overhead costs, it need not address that issue here since the competitively-neutral standard is not applicable to the Query Service in the first place.

As Ameritech explained in its Direct Case, pursuant to the Commission's Second Number Portability Order, the Query Service is an access service that Ameritech provides to an N-1 carrier. The Commission was very clear that the N-1 carrier has the direct responsibility to perform

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<sup>6</sup> The detailed calculation of the overhead loading factor used for the Query Service is shown in Ameritech's Description & Justification at Exhibit 3.

<sup>7</sup> *Id.* at ft. nt. 92.

<sup>8</sup> 47 U.S.C. 251(b)(2) and 251(e)(2).

the query. Thus, it is the N-1 carrier that is responsible under the Section 251(b)(2) to provide the number portability, and it is the N-1 carrier that is subject to the competitively-neutral cost recovery requirement.<sup>9</sup> For that reason, the Commission was able to find in the Second Number Portability Order that the costs of the Query Service could be recovered directly from the N-1 carrier, without finding that such a billing arrangement is competitively-neutral.<sup>10</sup>

Much of the confusion about application of competitively-neutral pricing to the Query Service results from the Commission's statement in the Second Number Portability Order that the LECs "may charge the N-1 carrier, pursuant to guidelines the Commission will establish regarding long-term number portability cost allocation and recovery."<sup>11</sup> However, the Commission did not hold that the Query Service was in fact subject to competitively-neutral recovery, which may be inconsistent with its recovery only from N-1 carriers. Rather, the Commission appears to have meant that its rules would clarify which costs are carrier-specific direct costs of number portability, and how N-1 carriers could recover query charges they pay consistent with the competitively-neutral standard.

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<sup>10</sup> Telephone Number Portability, Second Report and Order, released August 18, 1997. (Second Number Portability Order) at ¶¶73-75.

<sup>11</sup> *Id.*

Not only is the Query Service a new access service, but, as the Oppositions admit, it is a competitive one.<sup>12</sup> Since, the Query Service is competitive, it is even more important that it be priced above direct costs, at a level that recovers overhead costs to the extent consistent with market conditions. As Illuminet observed:

allocation of [overhead] costs to the full array of services provided by an entity ensures that one set of services is not subsidized by another. This is particularly necessary where, as here, there is nascent competition for the provision of LNP service.<sup>13</sup>

C. Only Direct Costs Of SS7, OSS And Billing Systems Were Considered.

Ameritech established in the Direct Case that it only considered the direct costs of upgrading, enhancing and augmenting its SS7, OSS and billing systems necessary to provide Query Service.<sup>14</sup> In Attachments 1 and 2 of the Direct Case, Ameritech specified each SS7 and OSS cost, and explained why that cost was necessary to provision, provide or bill the Query Service. Ameritech also demonstrated that each cost item would not have been incurred but for the obligation to provide LNP and the Query Service. As such, each OSS and SS7 cost considered by Ameritech in pricing the Query Service is properly a direct cost. No party presented any evidence refuting Attachments 1 and 2.

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<sup>12</sup> Illuminet at 1-2; MCI at 3.

<sup>13</sup> Illuminet at 5-6.

<sup>14</sup> at 5.

There was little serious dispute that Ameritech should be able to recover direct costs that were in fact required to provide the Query Service, or LNP and the Query Service.<sup>15</sup> Rather, the commenters dispute that some or all SS7 and OSS costs are not necessary to provide the Query Service, or that they should be disallowed since they also benefit other services. In particular, a number of parties claim that none of these shared OSS and SS7 costs should be recovered from the Query Service.<sup>16</sup>

However, MCI is the only party that provides a specific list of OSS and SS7 cost items it claims are not direct, and specifically disputes Ameritech's recovery of "costs of upgraded STPs, upgraded SSP-STP links, and upgraded monitoring." MCI asserts that because these components are used for all Ameritech services, the costs should be considered part of a 'general network upgrade' and not 'directly related' to LNP."<sup>17</sup> MCI is mistaken. Apparently, MCI did not read Attachments 1 and 2 to Ameritech's Direct Case. The bottom line is that Ameritech demonstrated that each of the disputed cost items was in fact necessary to provide the Query Service, and would not have been incurred, but for the requirement to provide LNP and the Query Service. The fact that some of these costs

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<sup>15</sup> Only, WorldCom (at 5-6) asserts that Ameritech should not be able to recover an SS7, OSS or billing system costs, but that position seems to be based on the mistaken impression that there are no direct costs related to these systems. Ameritech has already demonstrated, and even MCI (p5-6) agrees, that there are SS7 and OSS direct cost applicable to the Query Service.

<sup>16</sup> See, MCI, p 4 for example.

<sup>17</sup> MCI at 5.

may provide an incidental benefit to other services does not change the fundamental fact that they would not have been incurred but for the Query Service.

Thus, assignment of a pro rata portion of each of these direct costs of OSS and SS7 to the Query Service is appropriate, since it is the service that caused them. This method is consistent with the principal of recovery of costs from the cost-causer. The contrary result would turn this principle on its head, by allocating costs away from the cost-causer.

**D. Ameritech Properly Calculated Its Costs.**

Several parties complain that Ameritech did not prove that its Query Service costs are correct and proper. However, these parties could not have read Ameritech's Description & Justification and its Direct Case. The fact is that Ameritech calculated its costs using the same models and procedures that it routinely uses for access services, and provided to the Commission the same level of cost support it routinely provides with access tariff filings.

In the following sections, Ameritech will refute the specific allegations made in the Oppositions about its cost methodology.

**1) Other Direct Expenses.**

AT&T<sup>18</sup> expresses confusion about what cost components were included in the category Other Direct Expenses. However, Ameritech's

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<sup>18</sup> at 3.

Description & Justification specifies the cost components included in the Ameritech Query Service cost study by category.<sup>19</sup> The Other Direct Expense items are Regional Expenses, Tandem Expenses, End Office Expenses, SS7, Administrative and Billing Costs.

2) Tandem and End Office Cost Differences.

AT&T points to the differential in cost between tandem and end office queries, and claims that Ameritech "asserts that this differential is due to increased costs to provide transport from end offices."<sup>20</sup> AT&T complains that Ameritech has not explained how these transport costs were calculated.

AT&T is misinformed. The cost difference between tandem and end office queries is not due to additional transport costs. In fact, Ameritech did not even consider transport costs in calculating its Query Service rates because, for the most part, those facilities are already in place.

The development of the direct costs of end office queries and tandem queries is explained in Ameritech's Description & Justification. In summary, the cost differential between the end office and tandem costs is due to the fact that there are many times more end offices than tandem offices. Not surprisingly, expenses of upgrading and augmenting end office central office switches and facilities (such as software right to use fees) are

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<sup>19</sup> at 5.

<sup>20</sup> at 3.

much higher than for tandem switches, since they are incurred many more times at the end office. For instance, Ameritech needs to upgrade end office software in 13 times more end offices than tandem switches (633 vs. 47).

The cost differential between end offices and tandem switches is also due, in part, to the difference in the number of queries that will be performed at end offices versus the tandem switches. The LRN software requires an LNP query on all calls to portable NXXs that are routed through the tandem. However, for calls routed direct to an end office, queries need only be launched on calls to numbers (within portable NXXs) that are either non-working or ported. Hence, for the same volume of traffic, the query volume at the end office is substantially less, than will be experienced at the tandem level.<sup>21</sup>

### 3) The Depreciation Life Methodology Is Standard.

AT&T next accuses Ameritech of "using too short a life" for calculating depreciation costs.<sup>22</sup> AT&T also advocates the use of a depreciation life calculated via the Hatfield Model. However, that model is based on a non-forward-looking prescription, and is not appropriate for use

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<sup>21</sup> For example, assuming similar call characteristics for numbers within an NXX, if only one number is ported and all others assigned, the number of queries launched via tandem versus end office would be on a ratio of 10,000 to 1.

<sup>22</sup> *Id.* at p. 4.

in calculating the forwarding-looking direct costs of providing the Query Service.

Ameritech developed LNP Query Service costs using its TSLRIC methodology. This methodology has already been routinely utilized, and is currently being used by Ameritech to support Commission and state service filings. The depreciation costs calculated for LNP Query Service are based on a forward-looking economic life, consistent with a TSLRIC methodology, which range from 6 - 45 years and have been in use since 1995.

4) The Employee Related Expense Factor Is Correct.

AT&T questions the reasonableness of the factor used to estimate the LNP query costs associated with employee related expenses.<sup>23</sup> As stated in Ameritech's Direct Case, the employee related expenses for the Query Service were determined by multiplying the employee related expenses for LNP, by a factor representing the incremental employee related expenses required to implement and provide the Query Service.<sup>24</sup>

The factor was developed by Ameritech's Network Services personnel who are responsible for the implementation of Query Service. In order to determine at the factor, they reviewed the demand forecast for LNP and Query Service and the LNP budget associated with employee related

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<sup>23</sup> AT&T p. 4.

<sup>24</sup> Direct Case at 7.



expenses, and determined what incremental employee related expense activities are required for the Query Service.

**E. Ameritech's Demand Forecasts Are Reasonable.**

In considering concerns about the accuracy of Ameritech's demand studies, it must be remembered that (as demonstrated in Ameritech's Direct Case)<sup>25</sup> the parties that are now complaining about the accuracy of demand forecasts were the same ones that refused to provide any demand forecast information to Ameritech in the first place. As a result, Ameritech was required to use the best data available to it and to apply its judgment.

Several parties complain that Ameritech's demand forecasts may prove to be inaccurate, and propose that it be required to true-up its Query Service revenue by filing a refund or rate increase to recoup any under recovery or to refund any over recovery. However, such an approach is a radical departure from established practice and rules governing pricing of telephone services. It would be bad public policy since it could adversely impact future users with losses of providing the service in a prior period, and make rate levels uncertain. As such it must be rejected.

Of course, Ameritech will monitor on-going demand for its Query Service, and if it develops that demand varies substantially from forecasted

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<sup>25</sup> Direct Case at 13.

levels, Ameritech will file revised rates based on actual demand. However, it will not seek to improperly recoup or refund any sums.

**F. Ameritech Will Withdraw Its Nonrecurring Default Billing Charge.**

Several parties complain that Ameritech's proposed Nonrecurring Default Query Nonrecurring Charge seems excessive.<sup>26</sup> Since Ameritech has filed its Query Tariff, it has voluntarily explored possible ways to mechanically identify and bill for default traffic. Although those efforts have not yet been completed and full testing has not been performed, Ameritech has developed an interim arrangement that will help reduce its billing costs to a level that will enable it to withdraw the charge.

**G. Ameritech Will Assess The Query Charge On Traffic To NXX Codes Where At Least One Number Has Been Ported.**

Several parties are concerned that some LECs may assess the query charge on calls to numbers in a central office where no numbers are being ported.<sup>27</sup> Ameritech clarifies that it will only bill the Query Service rate on calls to a telephone number within a central office code (NXX) from which at least one number has been ported.

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<sup>26</sup> See, for example, AT&T at 12-13.

<sup>27</sup> See, for example, Sprint at 4.

**H. Accurate And Detailed Forecasts Are Necessary To Preserve Network Reliability.**

Ameritech addressed in its Direct Case the Commission's questions concerning detailed forecasts, and the necessity of blocking any traffic (default or prearranged) that is posing a risk to network reliability.<sup>28</sup>

Ameritech will not repeat its arguments here. Suffice it to say that without accurate detailed forecasts network reliability is an illusion. For that reason, exchange of forecasts has been an integral part of normal network planning between carriers for many years. Ameritech also explained that blocking of traffic that is causing a significant risk of network congestion is also essential to network reliability. For this reason, it does not matter whether the traffic involved is default traffic or prearranged traffic, as long as it is creating a risk to network reliability it should be blocked.

Several parties oppose providing forecasts, and the blocking of any traffic from a carrier who has prearranged with Ameritech.<sup>29</sup> However, it is important to take a step back and understand why accurate forecasting by carriers who have prearrangement is essential for network reliability and why Ameritech must have the ability to block any traffic that is impairing its public switched network.

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<sup>28</sup> at 18-26.

<sup>29</sup> See, for example, AT&T at 15; WorldCom at 10.

In essence, the public switched network is a usage sensitive network that cannot handle, without congestion, unlimited volumes of traffic, or substantial shifts of traffic to new routes without congestion. Thus, detailed forecasts accompanying prearrangement is critical so Ameritech can prepare its network to handle the volume of traffic it will receive. Without reliable detailed advance forecasts, this objective is completely frustrated and prearrangement creates the same risks to network reliability that are posed by default traffic. By the same token, when prearranged carriers substantially exceed their forecasts, they are also sending unplanned traffic and are likewise creating the same risks to network reliability. For these reasons, the refusal to provide necessary forecasting information, especially when network reliability is at issue, is also inconsistent with Congress' intent in crafting Section 256 - Coordination for Interconnectivity of the 1996 Telecommunications Act and with the Network Reliability and Interoperability Council's ("NRIC") recommendations for the use of bi-lateral interconnection agreement templates in ensuring reliability and interoperability.<sup>30</sup>

Regarding prearranged traffic, Ameritech provided a safe harbor of 125%. Ameritech agreed that as long as a carrier did not send more than 125% of its forecast, Ameritech would treat the traffic as prearranged and

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<sup>30</sup> See, Network Interoperability - The Key to Competition (July, 1997).

would first block default traffic of other carriers. Thus, a carrier that forecasts a 100,000 unqueried calls knows that it can safely send up to 125,000 calls.

AT&T alleges that the 125% number is arbitrary.<sup>31</sup> However, the 125% figure reflects basic margins designed into Ameritech's network to handle a reasonable amount of traffic above expected levels. Thus, the 125% figure reflects the amount by which carriers can generally exceed their forecasts and still not likely create a substantial risk of network blockage.

Potential blocking of prearranged traffic that exceeds forecasts by 125% is necessary to protect the quality of service for innocent end users, and to provide incentives to N-1 carriers to prevent and promptly remedy situations where they are causing network congestion. Blocking the traffic that is causing the problem is also generally the most effective and expeditious method resolving network congestion problems. For this reason, Ameritech's proposal to block prearranged traffic that substantially exceeds forecasts, and is thereby posing a threat of network disruption, should be upheld by the Commission as a reasonable, nondiscriminatory approach to preserving network reliability.

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<sup>31</sup> AT&T at 16.

I. The Query Service Properly Applies To Traffic Received From  
A Cellular Carrier Acting As An N-1 Carrier.

In accordance with the requirements of the Commission's Second Number Portability Order, the Query Service properly applies to default traffic received from N-1 carriers, including cellular carriers.<sup>32</sup> This issue is really a request for reconsideration of the Commission's earlier decision is not within the scope of this proceeding. Ameritech will not address it further.

III. CONCLUSION.

For the reasons described above, Ameritech's Query Service Tariff should be allowed to remain in effect, as filed.

Respectfully submitted,

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<sup>32</sup> See, Second Report and Order, released August 18, 1997 ("Second Number Portability Order") at para. 78 the Commission made it clear that "if a LEC performs a query on default routed calls, the LEC may charge the N-1 carrier . . . ." Thus, in cases where the cellular carrier is the N-1 carrier (the second to last carrier) and it sends the traffic to the LEC unqueried, it is subject to the Query Tariff charge. The Commission created no exception for cellular carriers.